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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,324	02/07/2002	Mutsumi Harada	X2007.0002/P002	4579

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DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
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EXAMINER

DUONG, THANH P

ART UNIT PAPER NUMBER

3711

DATE MAILED: 12/24/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/067,324		HARADA ET AL.	
	Examiner		Art Unit	
	Tom P Duong		3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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thickness in the central face portion inherently has a higher hardness than its periphery face portion (Col. 3, lines 11-25). Regarding claim 3, Werner discloses a thicker central portion of 6.86 mm at coordinate (0,0) to 6.60 mm at coordinate (20,0) (Figure 3 and Col. 4, lines 40-47) and shows the face is decreasing thickness toward its periphery. Measuring the hardness in the central face portion toward its periphery face portion will inherently provide a hardness distribution range since Werner shows varying thicknesses face structure. In view of Werner, the difference in hardnesses between the center face portion and its periphery face portion of the striking face would require the necessary measurement steps in order to evaluate the hardness distribution across the face wall or from point A to point B as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over prior art as applied to claim 1 above, and further in view of Harman (5,405,136). The prior art fail to disclose the difference in hardness value between the central portion and its periphery in Vicker hardness scale. Hardman discloses the central portion 80 has Shore A hardness of 80 (233 Hv) and the

DETAILED ACTION***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 08/02/2001. Again, it is noted, however, that applicant has not filed a certified copy of the P2001-032795 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Werner (6,319,150). Regarding claim 1, Werner discloses a golf club with a metal or non-metal striking face (Col. 4, lines 22-35) wherein the face wall of the central portion is thicker than its periphery (Abstract). Werner clearly suggests the stress concentration in the central portion of the face is greater than its periphery. Therefore, it is necessary to provide a thicker wall in the central face portion in order to increase structural strength and the increased in the wall

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outer ring 84 has a Shore A hardness of 40 (1Hv) and such variable face hardness differences tends to correct the off-center hits (Col. 4, lines 47-52). In addition, Applicant should note that the standard of measuring hardness of a face insert is in Rockwell hardness scale and the Rockwell scale has a direct relationship with Vickers hardness scale. Thus, it would have been obvious in view of Harman to one having ordinary skill in the art to provide a hardness difference as taught by Harman in prior art striking face in order to provide a striking face, which tends to correct the off-center hits.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Werner '150 in view of Zeider (5,232,224). Werner does not expressly disclose the face member is formed separately from the club head body. Zeider discloses that it is essential to fabricate the face member separately from the main body so that the face member can be formed with different loft angle (Col. 2, lines 42-53 and Col. 2, lines 62-68) prior to welding to the main body (Abstract). Thus, it would have been obvious in view of Zeider to one having ordinary skill in the art to fabricate the striking face of Werner separately from its main body as taught by Zeider in order to obtain different loft angles. Note, it is conventional to fabricate the face member separately from the main body for numerous advantages such as the face thickness, material selection, rebound characteristics, and structural strength, and it would have been obvious to do so here in order to improve the performance of the striking face. Claim 4 recites limitations similar to claim 3; thus, claim 4 is rejected for the same reasons as applied to claim 3, above.

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4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over prior art as applied to claim 2 above, and further in view of Harman (5,405,136). The prior art fail to disclose the difference in hardness value between the central portion and its periphery in Vicker hardness scale. Harman discloses the central portion 80 has Shore A hardness of 80 (233 Hv) and the outer ring 84 has a Shore A hardness of 40 (1Hv) and such variable face hardness differences tends to correct the off-center hits (Col. 4, lines 47-52). In addition, Applicant should note that the standard of measuring hardness of a face insert is in Rockwell hardness scale and the Rockwell scale has a direct relationship with Vickers hardness scale. Thus, it would have been obvious in view of Harman to one having ordinary skill in the art to provide a hardness difference as taught by Harman in prior art striking face in order to provide a striking face, which tends to correct the off-center hits.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

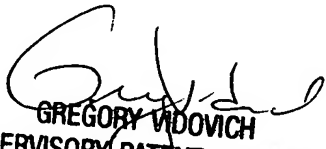
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (703) 305-4559. The examiner can normally be reached on 8:00AM - 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on (703) 308-1513. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

Tom Duong


GREGORY VDOVICH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700